

ABSTRACT

Method and apparatus for detecting failure in a piezoelectric element on a head suspension for a disk drive by clamping one end of the suspension, mechanically displacing and rapidly releasing the other end of the suspension, monitoring the electrical output of a piezoelectric element on the suspension and comparing the output with a predetermined output, using a clamp, motion actuator, and signal processor. The comparison may be with a predetermined voltage, and the output may be a natural frequency having a fundamental frequency corresponding to individual failure modes including adhesive fracture, piezoelectric element fracture, poling failure or a broken electrical connection.

M2:20657622.01